

AN ENVIRONMENTAL GUIDE FOR SOUTH CAROLINA
AUTOBODY SHOPS
AN OVERVIEW OF RULES, PERMITS
AND POLLUTION PREVENTION



ACKNOWLEDGMENT

This guide was adapted from "An Environmental Guide For Texas Autobody Shops, An Overview of Rules, Permits and Pollution Prevention" prepared by the Small Business Technical Assistance Program of the Texas Natural Resource Conservation Commission. The SCDHEC Small Business Assistance Program appreciates the material contributions of the TNRCC in the development of this manual, and gives particular thanks to Kerry Drake and Tamra Shae-Oatman for their contributions.

September 1995

This booklet was produced by the South Carolina Department of Health and Environmental Control Office of Environmental Quality Control Small Business Assistance Program. Under the 1990 Clean Air Act Amendments, each state is required to implement a Small Business Assistance Program (SBAP) to provide small businesses with the technical assistance needed to meet clean air act requirements.

For more information or copies contact:

South Carolina Department of Health and Environmental Control
Office of Environmental Quality Control
Small Business Assistance Program
2600 Bull Street
Columbia, SC 29201
(803) 734-5360
OR
1-800-819-9001

Table of Contents

General Information page 1

- 1 This Booklet
- 1 Getting More Information

Air Regulations pages 1-5

- 2 State Air Permit

- 2 Autobody Shop Exemption
- 3 Calculating Emissions
- 3 Can't Meet Conditions
- 3 Other Applicable Exemptions
- 3 Obtaining a Permit
- 4 Other Operations at the Same Facility
- 4 Records
- 4 Changes in Operations at the Facility

Federal Requirements pages 4-5

- 4 Meeting Federal Air Permitting Requirements
- 5 Requirements for Degreasing Operations

Compliance With The Law page 5

- 5 Violations of the Laws and Regulations

Waste Considerations pages 5-10

- 5 Handling Waste Chemicals
- 6 Generating Hazardous Wastes
- 7 Wastes Defined
- 7 Generator Status
- 8 Storage Quantities
- 8 Notifications
- 8 Records
- 8 Summary, Generator Requirements
- 9 Hazardous Waste Storage
- 9 Hazardous Waste Disposal
- 9 Hazardous Waste Permit
- 10 Dirty Water
- 10 Wastewater Permit

Pollution Prevention pages 10-13

- 10 How To Prevent Pollution
- 10 Pollution Prevention Defined
- 10 Interest In Pollution Prevention
- 11 Pollution Prevention Plans
- 12 Suggested Pollution Prevention Practices

Information

Why Do I Need This Booklet?

This booklet is a guide to what South Carolinians in the autobody business need to know to keep our air, water, and soil clean and to comply with state and federal laws. It was produced by the South Carolina Department of Health and Environmental Control's (SCDHEC) Small Business Assistance Program (SBAP), which was created to provide help to businesses like yours. You may deal with the SBAP in confidence. The information you share with us and the question you ask will not be provided to any regulatory or enforcement program.

Pollution is one of the nation's primary health and environmental concerns. A significant amount of pollution in South Carolina is created by small businesses. New state and federal laws are aimed at reducing your contributions to that pollution problem, thus you may need to do more than you are currently doing to comply with the law.

Complying with the law is not a choice -- it's your responsibility. Failure to comply may subject you to penalties. Let us help you avoid those penalties by providing the information you need. And remember, a

clean operation means better health for you, your employees and your community.

We also offer tips about how to reduce or prevent pollution. These tips could help you save money or reduce your emissions to the point that pollution laws do not affect you.

How Can I Get The Information I Need?

You may find after reading this booklet that you need additional information. If this is the case, please **call us** toll-free at **1-800-819-9001**.

What Air Regulations Apply To Me?

Several air regulations relating to permits may apply to autobody shops. One kind gives permission to construct or modify a facility. If you meet certain sets of requirements described on page 3, you may be able to claim a formal exemption from this permitting process. Another kind lists the federal requirements under which the facility must operate. Federal air permitting requirements are discussed in a later section. To find out more about state air permits, read below.

Do You Have Any Air Permits Now?

If you already have a "Permit to Construct" be sure to read carefully the section on what to do if you plan to modify or change your facility. If you do not have any permits, read ALL of the following information.

Do Volume Of Business And Gross Sales Have Anything To Do With My Need For An Air Permit?

No. The type of construction you make to your facility or your processes and the amount of chemicals you use in your processes will determine if you need a permit.

What Air Regulations Apply To Me?

Any business that generates air pollution must receive authorization from the South

Carolina Department of Health and Environmental Control (SCDHEC) to construct or modify its facility and subsequently to operate. This state authorization can take two forms:

- **Exemption from permitting requirements**
- **State Air Permit**

Each of these types of authorization will be discussed in detail below. In addition to state authorization, some businesses that emit large amounts of air pollutants also need to comply with federal regulations for operation. **Most autobody shops will not emit pollutants in quantities regulated by federal permitting requirements. For those that may fall under the jurisdiction of these requirements, however, federal permit requirements are discussed in a later section starting on page 4.**

The type of authorization you need depends on such things as:

- the amount of solvents and other chemicals you use,
- the amount of air pollution your facility has the potential to generate,
- the quality of the air in the area where your facility is located, and
- the date of the last change you made to your facility.

The type of authorization you need does not depend on any financial aspect of your business, such as volume of business or gross sales.

Read on for more detail about the various types of authorization.

How Do I Know If I Need A State Air Permit?

You will need a permit to construct or modify your facility and to operate it unless you are eligible to claim that it qualifies for an exemption from the permitting process. These exemptions from permitting are

discussed on page 3.

Do You Have Any Air Permits Now?

If you already have a State Air "Permit to Construct", be sure to read it carefully. Also read the sections of this booklet on page 4, "What If I Plan To Make Changes To My Operation" and "Do I Meet Federal Air Requirements?", and the sections on Waste Considerations, page 6, and Pollution Prevention, page 10. If you do not have any permits, read all of the following information.

Who Can Claim An Exemption From Permitting Requirements?

Autobody shops may be able to operate under an exemption. The term "exemption" means that a facility may be exempted from the requirement for a state air permit. These businesses must meet a set of conditions. A facility that meets these conditions will not make a significant contribution of air pollutants to the atmosphere and thus does not require a permit.

It is beneficial to most small businesses to meet the conditions for an exemption from state permitting. This type of authorization can be approved far more quickly than a permit. However, the conditions of the exemption are not negotiable; a facility must meet them exactly to qualify. Exemptions simply exempt you from having to obtain a state air permit. More specifically, even if emissions are below state exemption levels, some facilities may be required to obtain a federal permit. Exempted facilities must comply with all federal, state and local air laws and other environmental regulations.

How Do I Claim An Exemption?

If you meet all the conditions of an exemption you may "claim" that exemption. To qualify for the exemption, you must meet these criteria exactly, i.e., your facility's total uncontrolled emissions of volatile organic compounds (the pollutants generally associated with the autobody shop processes) must not exceed 1,000 pounds per month. This is the ceiling that state regulations set for processes emitting this category of contaminant.

What Happens If I Do Not Meet The Conditions Necessary To Claim An Exemption?

If you **don't** meet the conditions of an exemption, you may **not** claim the exemption unless you modify your facility to meet the conditions. If you **cannot** modify your facility or operations to meet the conditions, you **must** obtain a permit. If you would like detailed information about how to modify your facility or how to obtain a permit, **call us at 1-800-819-9001**.

Do You Have A Storage Tank As Part Of Your Operation?

If your facility includes a solvent storage tank, the tank may be subject to regulation. If you do have a solvent storage tank, **call us at 1-800-819-9001**, to find out if it is regulated.

Do You Have A Large Boiler As Part Of Your Operation?

If your facility uses a boiler, it may need an operational permit. Each individual boiler that meets **one** of the two following criteria **may** be exempt from state permitting requirements:

- A boiler that was constructed prior to February 11, 1971 **and** is one of the following:

1. Fueled by natural gas **and** sized at 100 million BTU's per hour (2,250 horsepower) or less.
2. Fueled by oil #6 **and** sized at 5 million BTU's per hour (112 horsepower) or less.
3. Fueled by oil #2 **and** sized at 44 million BTU's per hour (990 horsepower) or less

-A boiler sized at 1.5 million BTU's per hour (33.75 horsepower) or less which burns virgin fuel. (Virgin Fuel is defined as unused solid, liquid, or gaseous commercial fuel. Also, wood chips or bark that have not been processed other than for size reduction.)

(NOTE: Boiler information should be stamped on the boiler's specification plate or available from the vendor or manufacturer.)

For additional information on exemptions and regulations applicable to boilers, **call us** at **1-800-819-9001**.

How Do I Get A State Air Permit?

Autobody Shops that **do not** meet the requirements for an exemption **must** obtain a state air permit. To get a permit, you must submit an application to the SCDHEC. Your application will then be reviewed by the SCDHEC technical staff. Once it is approved, you will receive your permit. You may then begin to construct or operate your facility. If you meet the requirements for an exemption, it would be beneficial to us if you would submit a request claiming this exemption and explaining the reasons for an exemption. This will enable us to more efficiently track exempted facilities in our data base.

By law you must obtain your permit before you begin to construct or operate your facility. If your facility is already operating without the required authorization, you should seek that authorization now.

What If I Have More Than One Process In Operation At My Facility?

You may also have other operations going on at your facility. Each of these operations must be considered separately for purposes of permitting or qualifying for an exemption. If you need more information, **call us** at **1-800-819-9001**.

What Records Do I Need To Keep?

All businesses with a permit or an exemption from the permitting process must keep records that show compliance. Normal business transactions, such as purchase records, usage logs and maintenance schedules are normally sufficient. Some permits and exemptions identify specific records you must keep to verify your compliance.

If you have any questions about what records you should be keeping, **call us** at **1-800-819-9001**.

What If I Plan To Make Changes To My Operation?

If you plan to change any process, method of operation or equipment, you must first consider if you can still meet all the conditions of your exemption or permit after you make these changes. If you will not, you may trigger the need for a permit or permit amendment. If you need information on how proposed changes might affect your status, **call us** at **1-800-819-9001**.

Do I Meet Federal Air Requirements?

There are several Federal Air Permitting requirements that businesses must comply with when federal rules define them as "major sources".

To be a Major Source, a facility must use large amounts of substances listed as hazardous air pollutants, or HAPS, or emit large amounts of volatile organic compounds, or VOCs, from the paints, coatings or solvents it uses. Being defined as a "major source" is based on the potential to emit. Potential to emit is the maximum capacity of a plant to emit a regulated pollutant under its physical and operational design. Any physical or operational limitation, including air pollution control equipment and restrictions on hours of operation, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. However, you should look at your operation to determine your situation.

Do Any Of Your Coatings Or Formulations Contain These Hazardous Air Pollutants?

methanol
xylene
methyl ethyl ketone (MEK)
styrene
methylene chloride

toluene
methyl isobutyl ketone (MIBK)
glycol ethers
hexane
1-1-1 trichloroethane

phenol

ethyl benzene

If you use at least 20,000 pounds per year of materials containing these pollutants, you may need to know more about how to calculate the exact amount that would make you a "Major Source" of hazardous air pollutants.

If you use these amounts...Ask for Info-Major Source HAPS

Do You Use A Total Of At Least 50,000 Pounds Of Chemicals Each Year?

If you use a total of at least 50,000 pounds of all chemicals each year, you may need to know more about how to calculate the exact amount that would make you a "Major Source" of volatile organic compounds.

If you are using any chemicals in the amounts above...Ask for Info-Major Source VOC

Do you do parts washing or other degreasing operations in addition to paint and body work? If so, the federal standard for solvent degreasers may apply to your operation. **Call us at 1-800-819-9001.**

Your facility must not give off visible emissions or fine particles of matter, such as from paint spray or sandblasting. If this type of matter can be seen coming from your facility, you need to know more about how these emissions are regulated.

If you need to know more about visible emissions and particulate matter...**Call us at 1-800-819-9001.**

What If I Plan To Make Changes To My Operation?

If you plan to change any process, method of operation or equipment, you must first consider if you can still meet all the conditions of your standard exemption or permit. Changes may trigger the need for a permit or permit amendment.

When you need information on how these proposed changes might affect your status...

Call us at 1-800-819-9001.

What If I'm In Violation? What should I do if I discover that I have violated the law in the past or that my current operations are in violation of the law?

You should notify SCDHEC as soon as possible. It is always better to report your own violations than to be the subject of a complaint or to have violations be discovered during an inspection by SCDHEC. In many instances, small businesses will not face fines or sanctions for their first violation if they make good faith efforts to report problems as soon as they are aware of them and if they develop a SCDHEC approved plan to correct the problems.

For confidential assistance call 1-800-819-9001.

What do I do with unused chemicals, coatings and waste materials?

This section will take you through a step-by-step procedure for hazardous waste management. By following these steps, you ensure that your business complies with federal and state hazardous waste laws and you help your business to do its share to protect our state's natural resources. After following the steps described in this section, you should be able to answer two basic questions about your waste activity: "Do I produce hazardous waste?" and, if the answer is yes, "How much hazardous waste do I produce?" The answers to these two questions will tell you what requirements apply to you.

Do I Produce Hazardous Waste?

The term "hazardous" means more than just toxic or dangerous to our health. It also refers to specific

kinds of waste defined as hazardous by the Environmental Protection Agency. Hazardous wastes are regulated by the EPA and SCDHEC, so it is important to know which wastes are hazardous.

A facility (which can be a one-person operation or a company of any size) that produces hazardous waste is referred to as a hazardous waste "generator". The law holds the generator responsible for determining whether or not hazardous waste is generated at his or her facility. Before you can determine if your facility generates hazardous waste, you must first know what a "waste" is. A waste is any solid, liquid or contained gas that you no longer use and that you either recycle, throw away or store until you have enough for treatment or disposal. A hazardous waste is any waste that possesses one or more physical "characteristics" defined in the law as hazardous or that is "listed" as hazardous waste by EPA regulations. Listed waste are considered the most toxic. The distinctions between listed and characteristic are important to you, the generator, only for the purpose of identifying the waste. As an autobody shop, you probably produce characteristically hazardous waste, but may also produce listed waste. A waste can be both listed and characteristically hazardous.

The generator is responsible for looking at each waste generated at the facility and determining if it is hazardous or not. This can be done in one of three ways:

1. Compare the waste to the EPA/SC list and to the EPA/SC-defined characteristics for hazardous waste.
2. Use your knowledge of the waste and what went into it to compare the waste to the lists and characteristics. This method is called "process knowledge," and you may use any information you have including product labels, etc.
3. Arrange for a chemical analysis to determine whether the waste is hazardous or not.

Some effort and possibly some expense are required to make a hazardous waste determination on each waste. However, this determination only has to be done once. A new hazardous waste determination does not have to be done unless a new waste is generated or the waste generation process changes.

What Are Listed and Acutely Hazardous Wastes?

More than 400 discarded chemical products and wastes from specific processes are listed as hazardous wastes in the EPA/SC regulations. If your waste appears on one of these lists, or is mixed with any of the waste on these lists, it is hazardous. Examples are certain degreasing solvents like carburetor cleaner, some pesticides, certain paint thinners (depending on their ingredients) and specific manufacturing wastes. This list also includes many "acutely" hazardous wastes like sodium cyanide. If you generate any of these kinds of waste, you have hazardous waste.

What Are Characteristic Hazardous Waste?

Wastes that have one or more of the following characteristics: ignitability, reactivity, corrosiveness or toxicity, are considered characteristic hazardous wastes. Examples are paint wastes, certain paint thinners (depending on their ingredients), degreasing solvents and battery acids. If you generate any of these kinds of wastes, you have hazardous waste.

Automotive shops and paint and body shops typically generate hazardous wastes. Examples of these wastes are: batteries to be disposed of, carburetor cleaner, gasoline, paints, paint wastes and thinners. If you generate any of these wastes, you have hazardous wastes and must continue reading. If, however, you determine after comparing all your wastes to the listed and characteristic wastes, that your business does NOT generate hazardous waste, you do not need to proceed further into this section, because you are not subject to any hazardous waste laws. For further information, call us at 1-800-819-9001.

What Is My Generator Status?

The next step is to determine how much hazardous waste you generate per month by adding together the quantities of each kind of waste generated each month.

Your "generator status" refers to how much hazardous waste your business produces per calendar month. The amount produced determines what requirements apply to you. There are three kinds of hazardous waste generators, depending on the amount of hazardous generated. In general, Conditionally Exempt Small Quantity Generators, or CESQGs, do not have to notify or report to a regulatory agency but Small Quantity Generators, or SQGs, and Large Quantity, or LQGs must report to a regulatory agency. Most automotive and body shop will fall into either CESQG's or SQG's.

What Is A Conditionally Exempt Small Generator?

CESQGs generate no more than 100 kilograms of hazardous waste (220 pounds or about one-half a 55 gallon drum of liquid waste) and no more than one kilogram (one quart) of "acutely" hazardous waste per month. If you are a CESQG, you do not have to notify, register or report to the SCDHEC, as long as you do not store more than 1,000 kilograms (2,200 pounds) on site at one time. Simply have your waste picked up by a hazardous waste transporter who is permitted by the state. For further information, call us at 1-800-819-9001.

Note: Many transporters will not accept your waste unless you show them identification numbers, regardless of your generator status.

What Is A Small Quantity Generator?

SQGs generate between 100 kilograms of hazardous waste (220 pounds or about one-half a 55-gallon drum of liquid waste) and 1,000 kilograms (2,200 pounds or about five 55-gallon drums) and no more than one kilogram (one quart) of "acutely" hazardous waste per month. SQGs may accumulate up to 6,000 pounds of hazardous waste and store it on site for as long as 180 days before it must be hauled off-site of site by a permitted transporter.

For further information call us at 1-800-819-9001.

What Is A Large Quantity Generator?

LQGs generate at least 1,000 kilograms of hazardous waste (2,200 pounds or about five drums of liquid waste) and more than one kilogram (one quart) of "acutely" hazardous waste per month. A LQG may accumulate any amount of hazardous waste on site but may only store it on site for up to 90 days before it must be hauled off-site by a permitted transporter. For further information, call us at 1-800-819-9001.

What Records Should I Keep?

If you are a Conditionally Exempt Small Quantity Generator you need only keep records sufficient to verify your status; you should also keep any documents (Material Safety Data Sheets (MSDS), product labels) that you used to make your hazardous waste determinations. If you are a Small or Large Quantity Generator you should keep a copy of the notice of identification on file for at least three years (this period is automatically extended during the course of any unresolved enforcement action). You should also keep copies of the Uniform Hazardous Waste Manifest provided by your permitted hazardous waste hauler (transporter) and, when you ship your wastes, copies of quarterly reports and exception reports. If you have any questions, **call us at 1-800-819-9001.**

Do I Have To Notify The State About My Hazardous Waste?

If you decide, based on the quantity of hazardous waste you generate each month, that you are a Small Quantity Generator or a Large Quantity Generator, you must notify the SCDHEC about your hazardous waste activity. If, however, you are a Conditionally Exempt Small Quantity Generator, you are exempt from notification requirements. Notification involves filling out specific forms and assigning "waste codes" to each waste you produce. (You must notify SCDHEC in writing of status changes.) Waste codes are numbers that physically describe the waste.

The following table summarizes the differences between CESQG, SQG, and LQG that are applicable to autobody shops.

Summary Of Generator Status Requirements

Generator Status	Amount of Hazardous Waste per Month	Amount Acutely Hazardous Waste per month	Amount of Hazardous Waste Stored On-Site & Time Allowed	Do I Notify SCDHEC?
CESQG	100 kg or less (220 lbs.)	1 kg or less (1 qt.)	1,000 kg or less for any length of time	NO
SQG	Between 100 and 1,000 kg (2,200 lbs.)	1 kg or less (1 qt.)	6,000 kg or less for up to 180 days	YES
LQG	1,000 kg or more (2,200 lbs.)	More than 1 kg. (1 qt.)	Any amount for up to 90 days	YES

How Do I Store and Dispose of Hazardous Waste?

How Much Waste Can I Store At My Facility?

- If you are a CESQG, you may store up to 1,000 kilograms (2,200 pounds or about five drums of liquid) on-site for an unlimited amount of time.
- If you are a SQG, you may store up to 6,000 kilograms (13,200 pounds or about thirty drums) on-site for up to 180 days.
- If you are a LQG, you may store any amount of waste on-site, but you must have a permitted hazardous waste transporter dispose of it within 90 days from the initial storage date.

No matter how much waste you are allowed to store on site, you must comply with certain storage laws relating to the containers and physical condition of the waste. The purpose of these "container rules" is to ensure maximum safety for your staff and to protect the areas surrounding the wastes.

How Do I Dispose of Hazardous Waste?

Do NOT dispose of hazardous waste yourself, unless you have a hazardous waste permit allowing you to do so. To ensure that your hazardous waste is properly disposed of, you must choose a permitted hazardous waste transporter (who will haul the waste) and a permitted waste management facility (that will treat and dispose of it). Many companies provide both services to generators. The most important things you should remember about having waste shipped off-site for disposal are:

- Choose a transporter and facility that have SC/EPA identification numbers.
- Package and label your waste properly for shipping.
- Complete the form titled "Uniform Hazardous Waste Manifest," which must accompany the waste shipment from your facility to disposal.

Note: Autobody shops should be careful not to dispose of used automotive engine oil with regular trash that goes to the landfill. It is now illegal in South Carolina to dispose of automotive oil in landfills. Most autobody shops already have arrangements with a transporter to dispose of used oil. You should also make arrangements to properly dispose of/recycle used oil filters, antifreeze, and other automobile fluids.

If you have any further questions concerning this or any other hazardous waste issue, please call us at **1-800-819-9001**.

Do I Need A Waste Permit?

Most autobody shops do NOT need hazardous waste permits. Permits are issued to Treatment, Storage, Disposal facilities, or TSDs. Remember, if you are a Small Quantity Generator or a Large Quantity Generator, you need an identification number to produce the waste, but not a permit. A permit is permission from the SCDHEC to store, treat or dispose of your waste on your facilities property in quantities and for time periods that exceed what your generator status allows.

You do not need a hazardous waste permit unless you do any of the following:

- store waste longer than your generator status allows;
- treat your waste in an attempt to remove its hazardous characteristic in an open container or;
- dispose of your waste on your facility's property

What Do I Do With Dirty Water?

Any water that your business generates, like water from washing vehicles, cooling water or any other water that is an end result of some process, is a waste. As stated earlier, you must make a hazardous waste determination about all of your wastes, using one or more of the three methods described. Dirty water from washing vehicles is probably non-hazardous and can be discarded in sewers. If, however, you know that you just washed a vehicle or some equipment that was contaminated with a hazardous waste (such as leaded gasoline or wet paint), you must either assume it is hazardous or use some other method to determine its classification. If you find that you have a water waste that is hazardous, you must follow the procedures for properly managing hazardous wastes.

Do NOT dump any hazardous waste into any drains or sewer systems unless you have contacted your local wastewater utility and obtained authorization to do so. Some wastes are harmful to the collection system and the treatment plant, are not treatable or may be harmful to people working on the system or at the plant.

Do I Need a Wastewater Permit?

Typical autobody and paint shops do not discharge wastewater and do NOT need a permit to do so. You do not need a wastewater permit unless you do any of the following:

- discharge pollutants from any source like a pipe, ditch, tunnel or well;
- own or operate any facility that treats domestic or industrial sewage;
- own or operate a farm, fish hatchery or any animal feeding facility

For additional information about wastewater permits, **call us at 1-800-819-9001.**

How Can I Prevent Pollution?

What Is A Pollutant?

A pollutant is anything whose release into the environment could cause harm to an organism or its offspring. Some examples found in autobody shops are toxic and ignitable thinners, toxic paint and primer wastes, paint sludge, oil-and solvent-contaminated rags, oil filters, engine and hydraulic fluids, antifreeze and corrosive waste (ie. battery acid/carburetor cleaner). The improper disposal of any of these substances into the a drainage system or into the air is considered pollution.

What Does Pollution Prevention Mean?

Pollution prevention means that pollution should be prevented or reduced at the source whenever possible. By "reduced at the source", or source reduction, we mean limiting or stopping pollutants before they go into the environment, thus reducing danger to public health. Pollution prevention methods may include solvent substitutions, distillation/recovery, or filtration procedures.

Why Should I Be Concerned About Pollution Prevention?

Pollution prevention is a concern for everyone, including small businesses. By reducing or stopping pollution at its source, you should be able to substantially reduce your costs for materials, pollution controls and liability. At the same time, you will reduce risks to your workers' health and safety and to the environment.

You should be able to substantially reduce your costs by reducing or avoiding regulations. As a general rule, the more you reduce your pollution, the fewer regulations apply to you and the less time you must spend dealing with the regulatory agencies.

Large quantity hazardous waste generators are required to provide the agency with source reduction and waste minimization information during the company's fourth quarter's quarterly report. For further information on this, call us at 1-800-819-9001.

How Can I Prevent Pollution?

Just by asking the question, you have already started on the road to cleaning up the environment. The following pointers may help; they have guided many businesses in developing a pollution prevention plan.

1. Identify and evaluate your sources of pollution.
2. Look at short-term and long-term options for preventing pollution. The usefulness of any prevention option will depend on its costs, the degree of environmental hazard the pollutant poses, the potential liability the pollutant represents and your ability to finance improvements.
3. Calculate your current costs for controlling or managing pollutants and compare them with costs to reduce or prevent pollution from each source. By linking prevention costs to the source of pollution, rather than treating the costs as overhead, you can pinpoint which prevention measures will make the most economic sense.
4. Implement a pollution prevention plan that will yield the greatest benefit. Include practices that eliminate the most hazardous pollutants, that reduce the overall amount of pollutants or that reduce or eliminate the pollutants the most expensive to manage.
5. Develop record keeping and follow up procedures to track the effectiveness of your plan. Good records of your progress will enable you to share news of your success with the community (your customers) and to recognize the employees who have contributed to the prevention effort. Good record keeping will also prepare you to respond to any reporting requirements of state and federal agencies.
6. Re-assess your operations periodically to identify new opportunities to prevent materials from becoming pollutants. These may include recycling, substituting raw materials or making process or equipment changes.
7. Evaluate the effectiveness of your pollution prevention plan by conducting a periodic review of its results.

As you develop pollution prevention strategies for your business, remember:

- ◆ Pollution prevention starts at the top with YOU, the business owner. Your example will set the tone for your employees. If you're enthusiastic, they will be too.
- ◆ Your employees will probably be your best resources for preventing pollution. Educate them about your goals and then brainstorm for ideas on how to reduce or eliminate sources of pollution.
- ◆ This will be a continuing process.

For additional information, call us at 1-800-819-9001.

What Are Some Specific Pollution Prevention Practices That Address Autobody Shops?

Here are some practical recommended approaches to reducing air emissions when painting an automobile:

Spray Equipment

- Determine how much you are willing to spend for spray equipment.
- Determine the types of coating that will be sprayed through the equipment and the atomization properties required for their proper application.
- Prior to purchasing any paint gun, consult your paint representative to determine what type of gun

will work best for the products you will be using.

- Contact your paint representative and/or paint gun representative to determine the fluid tip/air cap combination and gun setting that should be used with the material being sprayed.
- Choose spray equipment that has the highest transfer efficiency while providing the required atomization properties within your price range.

Spray Equipment Practices

- Use the recommended air pressure and tip sizes for the specific product and equipment being used.
- Always hold the gun perpendicular to the surface being sprayed, using parallel strokes. Never arc the gun.
- Feather the trigger at the beginning and end of each pass.
- Use a 50% overlap for each pass. Note: This technique may need to be altered slightly when applying high-metallic, high-solids basecoats, and for some three stage systems.
- When painting small and medium sized panels, make each pass the full length of the panel.
- With larger panels, use a comfortable stroke, with a 4 - 5 " overlap of the strokes.
- If blending is necessary, keep the blend area as small as possible without jeopardizing the appearance of the blend.
- Spray the border edges of the substrate first (banding). This will assure all edges are covered without extending the spray pattern well beyond the borders of the object.
- Use color hiding power labels to determine the thickness of the applied paint film. These markers will also indicate when adequate coverage has been achieved.

Equipment Cleaning

- Use an air powered mechanical gun cleaning system.
- Use low VOC cleaning solvents and high flash point formulations.
- If cleaning guns manually, spray into an enclosed backdrop to retain atomized solvents.
- If necessary, use a broom straw, cleaning broach or a soft wood toothpick to clear pathways. Never use metal objects.

Surface Prep

- Always wash dirt and grime from the vehicle using water or a soap and water mixture.
- Use waterborne cleaners when possible.
- If, due to heavy contamination, waterborne cleaners prove unsatisfactory, use solvent-based cleaners for the initial cleaning. For secondary cleaning operations, use the waterborne products.
- If waterborne products prove unsatisfactory due to substrate make-up, use solvent-based cleaners sparingly.
- Keep solvent laden dirty rags in a closed container. Lease rags/laundry/reuse rags.
- Keep solvent containers closed when not in use.
- If possible, avoid operations that would necessitate multiple prepaint cleaning operations.

Prep Coats

- Use versatile such as epoxy primers or self-etching primers. The use of these products may alleviate the need for additional surface coating operations such as primer-surfacing or primer-sealing.
- If a self-etching primer or epoxy primer is not desirable, use a wash-primer and or metal conditioner, conversion coating system.
- Avoid high VOC content zinc phosphate primers.

Primer-Surfacers

- Use a properly operating primer gun with the correct fluid tip/air cap combination for your particular type of primer-surfacer.
- Use low VOC, waterborne primer-surface products.
- If the curing time of waterborne products proves unsatisfactory, consider the use of versatile urethane primers.
- To reduce VOC emissions, limit the material costs, and achieve a better quality product, make sure body work is done in such a manner as to require only a minimal amount of primer-surfacer.
- If a colored sealer is not used, make sure the primer-surfacer is a color that can easily be covered with the desired topcoat.

Primer Sealers

- Choose the proper sealer for each specific job.
- If filling capabilities are required, use a primer-sealer in place of a sealer.
- Always choose a primer-sealer of a color that can be easily covered with the coating to be sprayed, or choose a tintable primer-sealer.

Topcoats

- Mix color coats in-house, making certain the formula for the proper shade of the specific color code be used. This will help avoid the need for the blending of the finish to achieve a satisfactory color match.
- Keep good records of paint match information, including spray-out cards and detailed notes.
- Avoid the use of lacquer-based topcoats.
- Choose low VOC topcoats that require fewer than three topcoats to achieve adequate coverage (polyurethane or urethane).
- Apply only the number of coats needed to achieve an adequate finish.
- Use high solids, low VOC clears to topcoat color coats.
- Keep addition of paint additives to a minimum.
- When available, use waterborne basecoats.

For more information, call us at 1-800-819-9001.

What Other Environmental Rules Might Apply?

There may be local, city and county agencies that require registrations, inspections, certificates of occupancy, business licenses, etc. Be sure to check with OSHA (Occupational Safety and Health Administration) standards as well.

Does This Packet Include All The Information I Need To Comply With The Law?

No, this booklet is intended as a general guide to state and federal environmental laws that apply to your business. A careful reading of the information found here may reveal that you need additional materials. If you have any questions that are not answered here, or if you have questions about any of the information found in this booklet...**Call us at 1-800-819-9001.**